The Low Temperature Microgravity Physics Facility

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The Low Temperature Microgravity Physics Facility (LTMPF) is a state-of-the-art facility for long duration science investigations whose objectives can only be achieved in microgravity and at low temperature. LTMPF is a self contained, reusable, cryogenic facility that will accommodate a series of low temperature experiments to be conducted on the Japanese Experiment Module Exposed Facility of the International Space Station. The Facility will accommodate instruments of approximately 20 cm diameter, 40 cm length and mass less than 10 kg, with a cryogen lifetime exceeding five months. This paper will describe the LTMPF and its goals, its design requirements, and the current status of the Facility. Opportunities for utilization and collaboration will also be discussed.

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